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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,772	10/18/2003	Robert Vande Hey	1327.003	9534
23598 7590 12/24/2008 BOYLE FREDRICKSON S.C. 840 North Plankinton Avenue MILWAUKEE, WI 53203				
EXAMINER				
CAJILIG, CHRISTINE T				
ART UNIT		PAPER NUMBER		
3633				
NOTIFICATION DATE		DELIVERY MODE		
12/24/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@boylefred.com

### Office Action Summary

**Application No.**

10/688,772

**Applicant(s)**

HEY ET AL.

**Examiner**

CHRISTINE T. CAJILIG

**Art Unit**

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because the replacement Figure 6 contains leader lines without any reference numbers. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5, 12, and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The fourth line of claims 5, 12, and 19 recite, "the lower closed end [of the side overlap] overlaps the lower open end of the waterlock." There is no support for this in the specification because the lower closed end cannot overlap the lower open end of the waterlock of the same tile. The lower closed end would only be capable of overlapping the lower open end of the waterlock of an adjacent tile when assembled.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 7, 9- 11, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elzey (U.S. Patent No. 1,124,001) in view of Batcheller (U.S. Patent No. 1,740,217) and Papsdorf (U.S. Patent No. 4,787,190).

Regarding claims 4 and 11, Elzey discloses a molded composite roofing tile with a front and a back, a top and bottom, and opposite outer sides; the tile comprising, an

image section (1) with a plurality of tile or shingle images (A, B) having backsides (c) raised from a datum plane (D), a substantially constant front-to-back thickness (as shown in Figure 3), bottom edges (2) that establish the bottom of the image section, and outer sides (20, 20a) that establish opposite outer sides of the image section, and a visually distinct divider (a) extending adjacent each of the images; the back of said image section having support surfaces (E, F) at said datum plane, and reinforcing ribs (4) extending rearwardly to no further than said datum plane; a head lap (G) with an upper waterlock (8) along the top of the image section, the upper waterlock being configured to resist flow of water over the top thereof and for controlled water flow therefrom, and laterally spaced fastener-receiving formations (6); a side water lock (16) along one of said outer sides of the image section; and a side overlap (H) facing rearwardly along the other of said outer sides of the image section, the side overlap being configured for positioning into the side waterlock of an adjacent tile when installed onto a roof.

Elzey does not disclose that said reinforcing ribs are non-uniform and fastener-supports extending rearwardly to said datum.

Batcheller in Figure 2, discloses non-uniform reinforcement ribs (26, 27, 31, 32, 33). Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey to include non-uniform reinforcement ribs as taught by Batcheller to strengthen the body of the shingle and prevent buckling (see Page 2, Ln125-130).

Papsdorf discloses a roofing tile with fastener-supports (53) extending rearwardly to a datum plane (plane of line 14).

Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey to include fastener-supports extending rearwardly to said datum as taught by Papsdorf to provide support for the fastener.

Regarding claims 7 and 14, Elzey modified by Batcheller and Papsdorf discloses a roof tile as discussed above and further discloses that the side waterlock and side overlap are configured to establish side-to-side self-centering adjustment between adjacent tiles when installed onto a roof (as shown in Figure 5).

Regarding claims 9 and 16, Elzey modified by Batcheller and Papsdorf discloses a roof tile as discussed above and further discloses that the head lap includes a shelf (J) along the length thereof, and the fastener-receiving formations (6) are raised (7) from said shelf to separate fastener therein from water that may be on the shelf.

Regarding claim 10 and 17, Elzey modified by Batcheller and Papsdorf discloses a roof tile as discussed above and further discloses that the fastener-receiving formations (6) are provided with tapered counter-sunk holes (as shown in outline form in Figure 3) to establish a snug fit with correspondingly sized tapered heads of fasteners used to secure the tile to a roof.

Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elzey in view of Batcheller and Papsdorf as applied to claim 4 above, and further in view of Noone et al. (U.S. Pat. No. 6,178,703 B1).

Regarding claims 5 and 12, Elzey modified by Batcheller and Papsdorf discloses a roof tile as discussed above and further discloses that the side waterlock terminates at a closed upper end (18) proximate the top of the head lap and an open lower end (17) proximate but above the bottom (2) of the image section, and the side overlap has an open upper end (24) below the upper closed end (18) of the side waterlock for adjustable top-to-bottom positioning of the side waterlock and side overlap of adjacent installed tiles, and thus for adjustable exposure of the images of said tiles when installed onto a roof, but does not disclose that the side overlap terminates at a closed lower end capable of overlapping the lower open end of an adjacent side waterlock. However, Noone et al. discloses a roof tile where the side overlap (16) terminates at a closed lower end (41) and has an open upper end (38). Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey already modified by Batcheller and Papsdorf to have the side overlap terminate at a closed lower end which is capable of overlapping the lower open end of an adjacent side waterlock as taught by Noone et al. to provide an interlocking relationship with better resistance to rain penetration (see Col 5, Ln 8-13).

Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elzey in view of Batcheller and Papsdorf as applied to claim 4 above, and further in view of Fifield et al. (U.S. Pat. No. 5,070,671).

Regarding claims 6 and 13, Elzey modified by Batcheller and Papsdorf discloses a roof tile as discussed above, but does not disclose laterally aligned tile-positioning lugs extending rearwardly from the back of the head lap to beyond said datum plane for guided positioning of the roofing tiles onto laterally extending battens on a roof. However, Fifield discloses a roofing tile with laterally aligned tile-positioning lugs (9) extending rearwardly from the back of the head lap (1) to beyond a datum plane (plane established by the surface of 3) for guided positioning of the roofing tiles onto laterally extending battens on a roof. Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey already modified by Batcheller and Papsdorf to have laterally aligned tile-positioning lugs extending rearwardly from the back of the head lap to beyond said datum plane for guided positioning of the roofing tiles onto laterally extending battens on a roof as taught by Fifield et al. to provide a locating means from which to hang the roof tile on the battens (as shown in Figure 12).

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elzey in view of Batcheller and Papsdorf as applied to claim 4 above, and further in view of Bremer (U.S. Pat. No. 2,482,835).



Regarding claims 8 and 15, Elzey modified by Batcheller and Papsdorf discloses a roof tile as discussed above and further discloses that the upper water lock (G) includes an upper dam (9) and a side dam (10) on the side of the overlap and a lower water-guide (13) for draining onto the image section, but does not disclose an open side opposite the side dam for draining into the side waterlock. However, Bremer discloses a roof tile wherein there is an open side (a) opposite a side dam (b) for draining into the side waterlock (9). Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey already modified by Batcheller and Papsdorf to have an open side opposite the side dam for draining into the side waterlock as taught by Bremer so that water may drain out of the head lap and into a channel.

Claims 18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elzey (U.S. Patent No. 1,124,001) in view of Batcheller (U.S. Patent No. 1,740,217), Papsdorf (U.S. Patent No. 4,787,190), and Bremer (U.S. Pat. No. 2,482,835).

Regarding claim 18, Elzey discloses a molded composite roofing tile with a front and a back, a top and bottom, and opposite outer sides; the tile comprising, an image section (1) with a plurality of tile or shingle images (A, B) having backsides (c) raised from a datum plane (D), a substantially constant front-to-back thickness (as shown in Figure 3), bottom edges (2) that establish the bottom of the image section, and outer sides (20, 20a) that establish opposite outer sides of the image section, and a visually

distinct divider (a) extending adjacent each of the images; the back of said image section having support surfaces (E, F) at said datum plane, and reinforcing ribs (4) extending rearwardly to no further than said datum plane; a head lap (G) with an upper waterlock (8) along the top of the image section, the upper waterlock having a shelf (J) extending along the length thereof, an uninterrupted upper dam (9) to resist flow of water over the top of the shelf, an uninterrupted side dam (10) to resist flow of water out one side of the shelf, and an interrupted lower dam (8) for controlled flow of water out the bottom of the shelf toward the image section therebelow, laterally spaced fastener-receiving formations (6) proximate the lower dam, the fastener-receiving formations having pre-formed tapered fastener openings (as shown in outline form in Figure 3) and being raised from the shelf (via 7) to resist water flow into said openings; a side water lock (16) along one of said outer sides of the image section, the side waterlock having a forwardly facing channel (21a) substantially along the length thereof and proximate but above the bottom of the image section; and a side overlap (H) facing rearwardly along the other of said outer sides of the image section, the side overlap being configured for side-to-side adjustable positioning into the side waterlock channel of an adjacent tile when installed onto a roof, the channel and side overlap further having complimentary profiles to establish side-to-side self-centering between adjacent installed tiles (as shown in Figure 5).

Elzey does not disclose that said reinforcing ribs are non-uniform and fastener-supports extending rearwardly to said datum, and that the opposite side of the shelf is open for outflow of water from the shelf.

Batcheller in Figure 2, discloses non-uniform reinforcement ribs (26, 27, 31, 32, 33). Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey to include non-uniform reinforcement ribs as taught by Batcheller to strengthen the body of the shingle and prevent buckling (see Page 2, Ln125-130).

Moreover, Papsdorf discloses a roofing tile with fastener-supports (53) extending rearwardly to a datum plane (plane of line 14). Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey to include fastener-supports extending rearwardly to said datum as taught by Papsdorf to provide support for the fastener.

Furthermore, Bremer discloses a roof tile wherein there is an open side (a) opposite a side dam (b) for draining into the side waterlock (9). Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey to have an open side opposite the side dam for draining into the side waterlock as taught by Bremer so that water may drain out of the head lap and into a channel.

Regarding claim 21, Elzey modified by Batcheller, Papsdorf, and Bremer discloses a roof tile as discussed above and further discloses tile stacking guides (K) formed in the head lap capable of receiving the tile-positioning lugs of a second roofing tile stacked thereon.

Regarding claim 22, Elzey modified by Batcheller, Papsdorf, and Bremer discloses a roof tile as discussed above and further discloses that the side waterlock

channel (21a) is formed with outwardly sloping sides (shown in Figure 5) capable of establishing said side-to-side adjustable positioning between adjacent installed tiles.

Regarding claim 23, Elzey modified by Batcheller, Papsdorf, and Bremer discloses a roof tile as discussed above and further discloses that front and back of the image section are provided with aligned stacking regions (L, M, edges of a) that are spaced at an equal front-to-back distance from one another and separated top-to-bottom and side-to-side from one another for positioning back stacking regions of a first tile onto front stacking surfaces of a second tile stacked thereon.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elzey in view of Batcheller, Papsdorf, and Bremer as applied to claim 18 above, and further in view of Noone et al. (U.S. Pat. No. 6,178,703 B1).

Regarding claim 19, Elzey modified by Batcheller, Papsdorf, and Bremer discloses a roof tile as discussed above and further discloses that the side waterlock terminates at a closed upper end (18) proximate the top of the head lap and an open lower end (17) proximate but above the bottom (2) of the image section, and the side overlap has an open upper end (24) below the upper closed end (18) of the side waterlock for adjustable top-to-bottom positioning of the side waterlock and side overlap of adjacent installed tiles, and thus for adjustable exposure of the images of said tiles when installed onto a roof, but does not disclose that the side overlap terminates at a closed lower end capable of overlapping the lower open end of an adjacent side waterlock. However, Noone et al. discloses a roof tile where the side overlap (16)

terminates at a closed lower end (41) and has an open upper end (38). Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey already modified by Batcheller, Papsdorf, and Bremer to have the side overlap terminate at a closed lower end which is capable of overlapping the lower open end of an adjacent side waterlock as taught by Noone et al. to provide an interlocking relationship with better resistance to rain penetration (see Col 5, Ln 8-13).

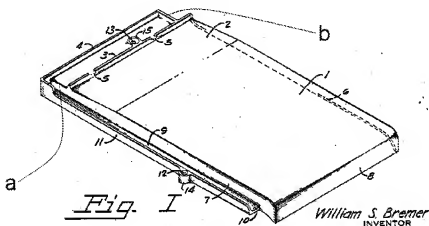
Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elzey in view of Batcheller, Papsdorf, and Bremer as applied to claim 18 above, and further in view of Fifield et al. (U.S. Pat. No. 5,070,671).

Regarding claim 20, Elzey modified by Batcheller, Papsdorf, and Bremer discloses a roof tile as discussed above, but does not disclose laterally aligned tile-positioning lugs extending rearwardly from the back of the head lap to beyond said datum plane for guided positioning of the roofing tiles onto laterally extending battens on a roof. However, Fifield discloses a roofing tile with laterally aligned tile-positioning lugs (9) extending rearwardly from the back of the head lap (1) to beyond a datum plane (plane established by the surface of 3) for guided positioning of the roofing tiles onto laterally extending battens on a roof. Therefore, it would have been obvious for a person having ordinary skill in the arts at the time of the Applicant's invention to modify the roof tile of Elzey already modified by Batcheller, Papsdorf, and Bremer to have laterally aligned tile-positioning lugs extending rearwardly from the back of the head lap

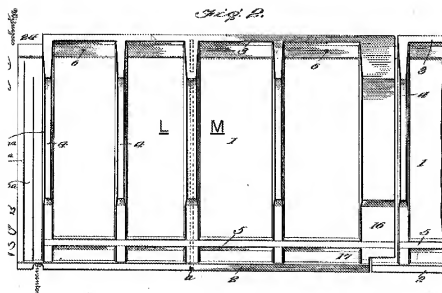
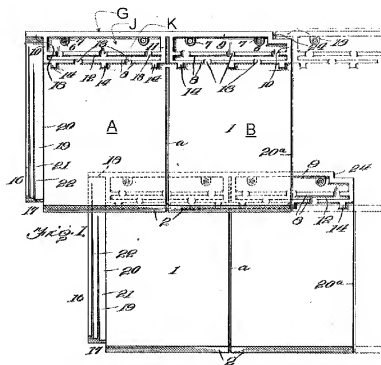
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to beyond said datum plane for guided positioning of the roofing tiles onto laterally extending battens on a roof as taught by Fifield et al. to provide a locating means from which to hang the roof tile on the battens (as shown in Figure 12).

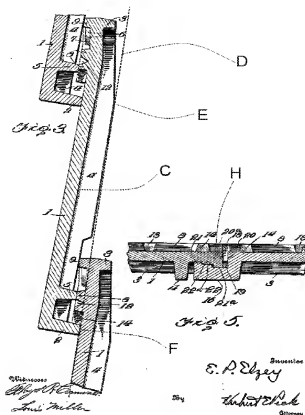
## Annotated Figures



Bremer (U.S. Pat. No. 2,482,835)



Elzey (U.S. Patent No. 1,124,001)



Elzey (U.S. Patent No. 1,124,001)

### **Response to Arguments**

Applicant's arguments filed 11/01/07 have been fully considered but they are not persuasive.

Applicant argues that claims 5, 12, and 19 overcome the rejection because the amendment now states that the lower closed end "is adapted to overlap...an adjacent tile." However, claims 5, 12, and 19 remain unamended. Accordingly, the 35 U.S.C. §112 rejection is maintained.



In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., non-straight/non-linear) are not recited in the rejected claims 4, 11, and 18. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Moreover, Applicant has not explicitly defined non-uniform to mean non-straight and random. Paragraph 0044 of the specification merely states that the ribs are "characterized as being formed as random, non-uniform, [and] non-straight." Accordingly, the teaching reference of Batcheller indeed discloses the claimed non-uniform rib, and the rejection is maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE T. CAJILIG whose telephone number is (571)272-8143. The examiner can normally be reached on Monday - Thursday from 8am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Canfield can be reached on (571) 272-6840. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. T. C./  
Examiner, Art Unit 3633

/Robert J Canfield/  
Supervisory Patent Examiner, Art Unit 3635